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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/077,207

05/26/1998

SATOSHI INOUE

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07/24/2002

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EXAMINER

PRENTY, MARK V

ART UNIT

PAPER NUMBER

2822

25

DATE MAILED: 07/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/077,207

Applicant(s)
INOUE et al.

Examiner
Prenty

Art Unit
2822



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 14, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-36 and 38-60 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25, 39, 43, 44, 47-57, 59, and 60 is/are allowed.
- 6) ☒ Claim(s) 26-36, 38, 40-42, 45, 46, and 58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other: _____

This Office Action is in response to the RCE filed May 14, 2002.

Claims 27-29, 32, 45 and 46 are rejected under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

2+1 Claim 27, as it depends on independent claim 25, is rejected because the specification does not describe a thin film transistor comprising a gate electrode including an extension extending from both sides of the at least one part opposed to the channel region along a channel length direction and further comprising another extension extending from both ends of the gate electrode along the channel length direction.

3+1 Claim 27, as it depends on independent claim 26, is rejected because the specification does not describe a thin film transistor comprising a channel region with an extension extending along both directions of the channel width and a gate electrode comprising an extension extending from both ends of the gate electrode along the channel length direction.

2+1 Claim 28, as it depends on independent claim 25, is rejected because the specification does not describe a thin film transistor comprising a gate electrode including an extension extending from both sides of the at least one part opposed to the channel region along a channel length direction and further comprising another extension extending from at least one end of the gate electrode along the channel length direction.

2+1 Claim 28, as it depends on independent claim 26, is rejected because the specification does not describe a thin film transistor comprising a channel region with

an extension extending along both directions of the channel width and a gate electrode comprising an extension extending from at least one end of the gate electrode along the channel length direction.

2+5 Claim 29, as it depends on independent claim 25, is rejected because the specification does not describe a thin film transistor comprising a gate electrode including an extension extending from both sides of the at least one part opposed to the channel region along a channel length direction, another extension extending from at least one end of the gate electrode along the channel length direction and a gate wiring electrically connected to the at least one end of the gate electrode through a plurality of contact holes.

3+5 Claim 29, as it depends on independent claim 26, is rejected because the specification does not describe a thin film transistor comprising a channel region with an extension extending along both directions of the channel width, a gate electrode comprising an extension extending from at least one end of the gate electrode along the channel length direction and a gate wiring electrically connected to the at least one end of the gate electrode through a plurality of contact holes.

2+3 Claim 32, as it depends on independent claim 25, is further rejected because the specification does not describe a thin film transistor comprising a gate electrode including an extension extending from both sides of the at least one part opposed to the channel region along a channel length direction and a channel region including an extension extending along at least one direction of the channel width.

5+3 With respect to claim 45, the specification does not describe a thin film transistor wherein at least one of the source or drain region and the gate electrode comprises an extension over which a plurality of contact holes are formed, and wherein the channel

region includes an extension extending along both directions of the channel width.

5+2 With respect to claim 46, the specification does not describe a thin film transistor wherein at least one of the source or drain region and the gate electrode comprises an extension over which a plurality of contact holes are formed, and wherein the gate electrode comprises an extension extending from both ends of the gate electrode along the channel length direction.

Claims 26, 30, 31, 33 and 34 are rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Cherne et al. (newly cited United States Statutory Invention Registration H1435).

With respect to independent claim 26, Cherne et al. disclose a thin film transistor (see the entire reference, particularly the Fig. 3 disclosure), comprising: a channel region 14, the channel region includes an extension 31/32 along both directions of a channel width; a gate electrode 21; a gate insulating film 22 provided between the channel region and the gate electrode; and a source-drain region 16 or 18 connected to said channel region.

Although Cherne et al. do not explicitly disclose a source-drain wiring and a gate wiring, such are either implicitly disclosed by Cherne et al. or at the very least it would have been obvious to one skilled in this art to provide Cherne et al.'s thin film transistor with a source-drain wiring and a gate wiring, in order to form a functioning transistor.

Claim 26 is thus rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Cherne et al.

With respect to dependent claim 30, if not already implicit in Cherne et al., at the very least it would have been obvious to one skilled in this art to electrically connect

the gate wiring to the gate electrode through a contact hole.

Claim 30 is thus rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Cherne et al.

With respect to dependent claim 31, if not already implicit in Cherne et al., at the very least it would have been obvious to one skilled in this art to electrically connect the source-drain wiring to the source-drain region through a contact hole.

Claim 31 is thus rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Cherne et al.

With respect to dependent claims 33 and 34, Cherne et al.'s discloses extends to CMOS transistors (see the title of the invention, for example).

Claims 33 and 34 are thus rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Cherne et al.

Claims 35, 36, 38, 40-42 and 58 are rejected under 35 U.S.C. §103(a) as being unpatentable over Cherne et al. (newly cited United States Statutory Invention Registration H1435) together with Koyama et al. (United States Patent 5,616,935, already of record).

Specifically, the difference between Cherne et al. (see the entire reference, particularly the Fig. 3 disclosure) and the set of rejected claims is the latter's (C)MOS thin film transistors are used in various devices.

Koyama et al. teach that "Complementary circuits using TFTs are conventionally used to drive an active matrix type liquid crystal display device, an image sensor, and the like" (column 1, lines 15-17).

It would have been obvious to one skilled in this art to use Cherne et al.'s complementary thin film transistors "to drive an active matrix type liquid crystal display

device, an image sensor, and the like," as taught by Koyama et al.

Claims 35, 36, 38, 40-42 and 58 are thus rejected under 35 U.S.C. §103(a) as being unpatentable over Cherne et al. together with Koyama et al.

Claims 25, 39, 43, 44, 47-57, 59 and 60 are apparently allowable over the prior art of record.

Registered practitioners can telephone examiner Prenty at (703) 308-4939. Any voicemail message left for the examiner must include the name and registration number of the registered practitioner calling, and the application's Serial Number. Technology Center 2800's general telephone number is (703) 308-0956.

Mark Prenty
Mark V. Prenty
Primary Examiner